



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,817	11/09/2001	James J. Harrison	T-5565	6837
7590 03/24/2004				
Linda A. Stokley Chevron Texaco Corporation P.O. Box 6006 San Ramon, CA 94583-0806		EXAMINER MCAVOY, ELLEN M		
		ART UNIT PAPER NUMBER 1764		

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 10/006,817	Applicant(s) HARRISON ET AL.	
	Examiner Ellen M McAvoy	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/9/01</u> . | 6) <input type="checkbox"/> Other: ____ |

Art Unit: 1764

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison et al (6,358,892) or Harrison et al (5,853,434).

The Harrison et al ["Harrison"] references disclose compositions comprising polyalkylene polysuccinimides, and post-treated derivatives thereof, which act as dispersants in lubricating oils and as deposit inhibitors in hydrocarbon fuels. The polyalkylene compositions can be prepared by reacting a mixture of an alkenyl or alkylsuccinic acid derivative, an unsaturated acidic reagent copolymer, and a polyamine under reactive conditions. See formula (I) set forth in column 6, lines 15-42, of ('892) and column 4, lines 8-30 of ('434). The alkenyl or alkyl substituent, R, of the alkenyl or alkylsuccinic acid derivative has a Mn of from 1800 to 3000. The unsaturated acidic reagent copolymer has an average degree of polymerization, x, of from 2 to 20, and is a copolymer of an unsaturated acidic reagent and an olefin wherein R¹ is an alkyl having an average of from 12 to 28 carbon atoms. The polyamine has at least three nitrogen atoms and has from 4 to 20 carbon atoms. The examiner is of the position that the polyalkylene polysuccinimide set forth in the Harrison references appear to meet the limitations of the polymers in applicants' independent claim 26 and the process for preparing the polymers in independent claims 35 and 37. The only difference appears to be substituent R₁ which is

Art Unit: 1764

methyl in applicants' claims and hydrogen in Harrison. The examiner is of the position that this is an obvious variance which is not expected to effect the properties of the polysuccinimide compound. Harrison teaches that the polysuccinimide compound may be post-treated by reaction with a cyclic carbonate, a boron compound such as boric acid, and other compounds inorganic phosphorous acids. See column 13, line 40 to column 16, line 35, of ('892). Thus the examiner is of the position that the Harrison references meet the limitations of the above rejected claims.

Claim Rejections - 35 USC § 103

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruhe, Jr. (5,175,225).

Ruhe, Jr. discloses oligomeric copolymers having alternating succinic and polyalkylene groups which may be used as intermediates for dispersants or as dispersants themselves in lubricating oil compositions. Ruhe, Jr. also discloses a process for preparing the oligomeric copolymers. The copolymers are set forth in column 6, lines 45-53, wherein W' and Z' are independently selected from -OH, -O-lower alkyl or taken together are -O- to form a succinic anhydride group, and the R substituents may be hydrogen, lower alkyl groups of 1 to 6 carbon atoms, and higher alkyl groups of at least about 30 carbon atoms. The examiner is of the position that the oligomeric copolymer of Ruhe, Jr. meets the limitations of the copolymers of independent claims 1 and 14 when n is 1 and m is 1.

Art Unit: 1764

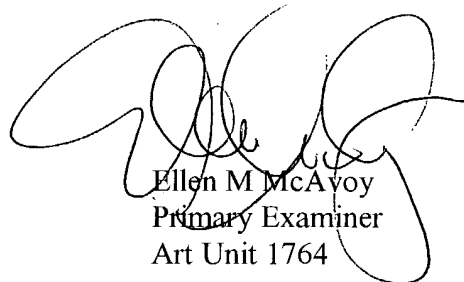
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ellen M McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
March 19, 2004